

What is claimed is:

1. A dishwasher having a cavity, where steam is created, enclosed in part by a  
2 side and a fan motor for driving a fan via a rotational shaft, each of which are installed at an  
3 upper point of the cavity side, for generating a suction force to discharge the steam from the  
4 cavity through the upper point of the cavity side via a steam discharger, the steam discharger  
5 comprising:

6 a fan housing, enclosing the fan motor and fan, for guiding the steam discharged by  
7 an operation of the fan motor, said fan housing having a steam intake port communicating  
8 with the cavity and a steam exhaust port penetrating the cavity side;

9 an intake port cover, movably installed within said fan housing, for opening and  
10 closing the steam intake port of said fan housing; and

11 coupling means, linking said intake port cover with the rotational shaft of the fan  
12 motor, for transferring the driving force of the fan motor to said intake port cover to  
13 selectively open and close the steam intake port of said fan housing.

1. 2. The dishwasher as claimed in claim 1, wherein the steam intake port of said  
2 fan housing opens during a performance of a drying step by the dishwasher and closes during  
3 a performance of washing and rinsing steps by the dishwasher.

1. 3. The dishwasher as claimed in claim 1, wherein said intake port cover has a  
2 central shaft for linking with the rotational shaft of the fan motor.

1. 4. The dishwasher as claimed in claim 3, wherein said fan housing is provided

2 with a through-hole, disposed in opposition to the steam intake port, and wherein the central  
3 shaft of said intake port cover extends through the through-hole of said fan housing to link  
4 with the rotational shaft of the fan motor.

1           5.       The dishwasher as claimed in claim 3, the coupling means comprising:  
2            a spring, installed on an outer circumference of the rotational shaft of the fan motor,  
3            to be elastically supported by the fan motor;  
4            a push ring, installed movably along the rotational shaft of the fan motor, for  
5            compressing said spring;  
6            a push member, hinge-coupled with the rotational shaft of the fan motor, for pressing  
7            said push ring when the rotational shaft of the fan motor is driven; and  
8            a linking rod having a first end supported by said push ring, a second end coupled to a  
9            distal end of the central shaft of said intake port cover, and a leverage point hinge-coupled to  
10          said fan housing so that when, said push ring compresses said spring, said intake port cover  
11          opens said steam intake port.

1           6.       The dishwasher as claimed in claim 5, wherein, when said spring is in a static  
2          state, said intake port cover closes said steam intake port.

1           7.       The dishwasher as claimed in claim 5, said push ring comprising:  
2            a hollow body, fitted over the rotational shaft of the fan motor, having a first end  
3            abutting said spring; and  
4            an annular flange, formed on a second end of said hollow body, said annular flange  
5            providing a first surface to catch the first end of said linking rod and a second surface in

6 contact with said push member.

1 8. The dishwasher as claimed in claim 5, said push member comprising:

2 a skewed hollow shaft, disposed at a first predetermined angle with respect to the  
3 rotational shaft of the fan motor and hinge-coupled to the rotational shaft of the fan motor at a  
4 second predetermined angle so as to movably rotate against the rotational shaft; and

5 a pair of pivoting arms extending perpendicularly from a circumferential surface of  
6 said skewed hollow shaft.

1 9. The dishwasher as claimed in claim 8, wherein an inner diameter dimension

2 of said skewed hollow shaft is greater than an outer diameter dimension of the rotational shaft  
3 of the fan motor, depending on the second predetermined angle of said skewed hollow shaft.